

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Vignia 22313-1450 www.uspto.gov

| APPLICATION NO.              | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|------------------------------|---------------|----------------------|-------------------------|------------------|
| 09/900,480                   | 07/06/2001    | Ashok V. Joshi       | 011125                  | 4158             |
| 759                          | 90 08/04/2003 |                      |                         |                  |
| Jovan N. Jovan               |               | EXAMINER             |                         |                  |
| 1327 W. Washin<br>Suite 5G/H | igton Blvd.   | GHALI, ISIS A D      |                         |                  |
| Chicago, IL 60               | 607           |                      |                         |                  |
| 3,                           |               |                      | ART UNIT                | PAPER NUMBER     |
|                              |               |                      | 1615                    | 12               |
|                              |               |                      | DATE MAILED: 08/04/2003 | (')              |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |   | Applic   | cation No.         | Applicant(s)  |  |  |  |
|---|---|--|--------------------|---|--|--|--|
| Office Action Summary   |   |  | 0,480              | JOSHI, ASHOK V.   |  |  |  |
|   |   |  | iner               | Art Unit  |  |  |  |
|   |   | Isis G   | hali               | 1615  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |   |  |                    |   |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM   |   |  |                    |   |  |  |  |
| THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |   |  |                    |   |  |  |  |
| 1) 🖂  | Responsive to communication(s) f  | iled on <i>02 June 20</i>  | 03 .               |   |  |  |  |
| 2a)⊠  | This action is <b>FINAL</b> .   | esponsive to communication(s) filed on <u>02 June 2003</u> .  his action is <b>FINAL</b> . 2b) This action is non-final. |                    |   |  |  |  |
| 3)□   |   | <i>,</i> —   |                    | ters prosecution as to the merits is                                |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. <b>Disposition of Claims</b>   |   |  |                    |   |  |  |  |
| 4)🖂   | Claim(s) 1-19 and 24-33 is/are per  | nding in the applica   | ition.             |   |  |  |  |
|   | 4a) Of the above claim(s) 1-17 and 25-33 is/are withdrawn from consideration.   |  |                    |   |  |  |  |
| 5)[   | Claim(s) is/are allowed.  |  |                    |   |  |  |  |
| 6)⊠   | 6)⊠ Claim(s) <u>18, 19, 24</u> is/are rejected.   |  |                    |   |  |  |  |
| 7)  | 7) Claim(s) is/are objected to.   |  |                    |   |  |  |  |
| 8)□   | 8) Claim(s) are subject to restriction and/or election requirement.   |  |                    |   |  |  |  |
| Application Papers  |   |  |                    |   |  |  |  |
| 9)☐ The specification is objected to by the Examiner.   |   |  |                    |   |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.   |   |  |                    |   |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |  |                    |   |  |  |  |
| 11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.   |   |  |                    |   |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |   |  |                    |   |  |  |  |
| 12)☐ The oath or declaration is objected to by the Examiner.  |   |  |                    |   |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |   |  |                    |   |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |   |  |                    |   |  |  |  |
| a)  | a) ☐ All b) ☐ Some * c) ☐ None of:  |  |                    |   |  |  |  |
|   | <ol> <li>Certified copies of the priority documents have been received.</li> </ol>  |  |                    |   |  |  |  |
|   | 2. Certified copies of the priority documents have been received in Application No  |  |                    |   |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |   |  |                    |   |  |  |  |
| 14) 🗌 A   | acknowledgment is made of a claim   | for domestic priorit   | ty under 35 U.S.C. | § 119(e) (to a provisional application).                            |  |  |  |
| a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.   |   |  |                    |   |  |  |  |
| Attachmen   | t(s)  |  |                    |   |  |  |  |
| 2) 🔲 Notic  | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (<br>nation Disclosure Statement(s) (PTO-1449) | •  |                    | Summary (PTO-413) Paper No(s)  nformal Patent Application (PTO-152) |  |  |  |
| J.S. Patent and T<br>PTO-326 (Re  |   | Office Action Sun  | nmary              | Part of Paper No. 13  |  |  |  |

Page 2

Application/Control Number: 09/900,480

Art Unit: 1615

### **DETAILED ACTION**

The receipt is acknowledged of applicant's amendment B, filed 06/02/2003.

Claims 1-19, 24-33 are pending, claims 1-17 and 25-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups. Thus claims 18, 19, and 24 are included in the prosecution.

## Response to Election/Restrictions

1. Applicant's election with traverse of species (h), photovoltaic materials in Paper No.2 is acknowledged. The traversal is on the ground(s) that all the species e-h belong within the same species as they functionally the same because they are all photovoltaic materials. This is not found persuasive because according to applicant's disclosure, at page 11, Table I, applicant disclosed a list of photocatalytic materials wherein the photovoltaic materials are classified in a separate group from species f) i.e. germanium doped with p-type and n-type impurities, and g) i.e. P-N junctions of semiconductors. The photovoltaic materials include silicon. Thus, species e and h are examined together as applicant disclosed silicon as one of the species of the photovoltaic materials, and species f and g are withdrawn. Regarding applicant's argument that the species have the same functionality, the examiner position is that the search system and the focus of the invention are completely different, requiring an undue burden on the patent

Application/Control Number: 09/900,480 Page 3

Art Unit: 1615

examiner. While searches may seem to be overlapping, no reason to expect the search to be un-extensive since the patent examiner searches the databases mostly literally. The patent examiner searches the claimed distinct species and not their function.

Searching the semiconductor and the doped germanium and doped silicon are totally different from searching silicon by itself in a wound healing composition. In the opinion of the examiner the applicant presents distinct species.

The requirement is still deemed proper and is therefore made FINAL.

2. This application contains claims 1-17, 25-33 drawn to an invention nonelected with traverse in Paper No. 8. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

The following new ground of rejection is necessitated by applicant's amendment B, Paper 12:

## Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 4. Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Application/Control Number: 09/900,480

Art Unit: 1615

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. In the present instance, claim 24 recites the broad recitation "photovoltaic materials", and the claim also recites "silicon" which is the narrower statement of the range/limitation.

Furthermore, claim 24 is not in the proper Markush format. Proper Markush format to be followed in the claim should have the expression "selected from the group consisting of", and only the last two members of the Markush group are separated by the connector operator "and" OR "or".

Furthermore, the claim contains unnecessary capitalization of some word, such as "silicon, germanium, and photovoltaic".

The following rejection have been discussed in the previous office action, and maintained for reasons of record:

(A) Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,563,485 ('485).

US '485 disclosed a material for topical burn therapy (wound healing) comprising a substrate to which silver salts or zinc salts is applied, which reads on photovoltaic materials claimed in claim 18 (col.2, lines 50-52; col.3, lines 17, 64-65; col.4, lines 65-67). The silver salts are incorporated on or within the substrate (col.3, lines 23-28). An

Application/Control Number: 09/900,480

Art Unit: 1615

example of the substrate used is woven fabric, which reads on claim 19 (col.3, lines 50-51).

The limitation claims 18 and 19 are met by the reference.

(B) Claims 18, 19 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,333,093 ('093).

US '093 disclosed wound dressing where the skin contacting surface comprises substrate associated with metal selected from the group comprising silver (abstract; col.3, lines 1-7; col.5, line 40). The skin-contacting layer comprises matrix that comprises different material includes metals such as Si, which reads on photovoltaic materials claimed in claim 18 and 24 (col.3, lines 8-13). The substrate can be woven material, reads on claim 19 (col.12, line 25).

The limitations of claims 18, 19 and 24 are met by the reference.

## Response to Arguments

5. Applicant's arguments filed 6/02/2003 have been fully considered but they are not persuasive.

The main gist of applicant's arguments against the above rejections is that although both US '485 and US '093 disclose antimicrobial materials, they do not even contemplate the use of photovoltaic materials.

In response to the above argument, the examiner position is that the claims are directed to composition, and all the elements of the composition are disclosed by the

Art Unit: 1615

each of the references. Claims 18 is broad and reads on a product comprising a substrate and a photovoltaic material, any of those listed on Table I of applicant's disclosure. US '485 disclosed the substrate and the silver salts that are disclosed by applicant as photocatalytic materials in page 11, Table I. US '093 disclosed substrate comprising silicon, which reads on the photovoltaic material claimed in claim 24. The claiming of a new use, new function or unknown property, which is inherently present in the prior art, does not necessary make the claim patentable.

### Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number: 09/900,480

**Art Unit: 1615** 

7. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Isis Ghali whose telephone number is (703) 305-4048.

The examiner can normally be reached on Monday through Thursday from 7:00 AM to

5:30 PM, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thurman Page, can be reached on (703) 308-2927. The fax phone number

for the organization where this application or proceeding is assigned is (703) 305-3592.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

1235.

Isis Ghali

Examiner

Art Unit 1615

THUBMAN K. PAGE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CHUTER 1600

Page 7